

What is claimed is:

1. A method for plating a metal in fine channels formed in a surface of a substrate or in opening portions in a resist formed on a surface of a substrate, comprising:

providing a substrate having fine channels formed in a surface of said substrate or having opening portions in a resist formed on the surface of said substrate;

using a deaerating device to deaerate dissolved gas in a preprocessing solution so as to provide a deaerated preprocessing solution;

supplying said deaerated preprocessing solution from said deaerating device to a preprocessing bath;

contacting said surface of said substrate, or said resist formed on said surface of said substrate with said deaerated preprocessing solution in said preprocessing bath so as to absorb air bubbles in said fine channels or in said opening portions into said deaerated preprocessing solution; and then

contacting said surface of said substrate, or said resist formed on said surface of said substrate with a plating solution for plating metal into said fine channels or into said opening portions.